Claims

1. Method of fixing to the surface of a first part (1) composed of a metal material a second metal material (4) by melting a brazing alloy (3) adapted to the second material, the first material being composed of an intermetallic Ti-Al alloy, characterised in that a layer of nickel (2) is interposed between the first part (1) and the brazing alloy (3).

2. Method according to claim 1, wherein the second material is in the form of a second preformed part (4) and wherein the layer of nickel (2) and the brazing alloy (3) are pressed between the first and second parts (1, 4).

3. Method according to claim 1, wherein the second material is in the form of a coating which is applied to the assembly formed by the first part, the layer of nickel and the brazing alloy.

4. Method according to one of the preceding claims, wherein the layer of nickel is in the form of a preformed sheet (2).

5. Method according to one of claims 1 to 3, wherein the layer of nickel is in the form of a covering.

6. Method according to claim 5, wherein the covering of nickel is deposited by electrolytic means.

7. Method according to one of the preceding claims, wherein the layer of nickel (2) has a thickness of at least 30 μm and preferably of at least 40 μm.

8. Method according to one of the preceding claims, wherein the second material is a nickel-based alloy.

9. Method according to one of the preceding claims, wherein the whole to be treated is brought to a temperature higher than the melting temperature of the brazing alloy for at least 10 minutes in a vacuum.

10. Method according to claim 9, wherein the method is carried out under a residual pressure of less than 10^{-3} Pa.

11. Composite metal part such as can be obtained by the method according to one of the preceding claims, comprising a substrate (1) composed of an intermetallic Ti-Al alloy, covered with a plurality of successive layers, notably a first layer (5) containing the phases $\alpha 2$-Ti_3Al, $\tau 2$-Ti_2AlNi and $\tau 3$-TiAlNi, second, third and fourth layers (6, 7, 2) formed respectively of the phases $\tau 4$-$TiAlNi_2$ and γ'-Ni_3Al and of nickel, and a fifth layer (8) of brazing alloy connecting the fourth layer (2) to another metal material (4).

12. Part according to claim 11, wherein the first layer (5) contains islets (5-1) of $\alpha 2$-Ti_3Al dispersed in a polyphase matrix (5-2) comprising $\tau 2$-Ti_2AlNi and $\tau 3$-TiAlNi.

13. Part according to claim 11, wherein the first layer comprises a first sub-layer of $\alpha 2$-Ti_3Al and a second polyphase sub-layer comprising $\tau 2$-Ti_2AlNi and $\tau 3$-TiAlNi.

14. Part according to claim 11, wherein the first layer comprises a first sub-layer of $\alpha 2$-Ti_3Al, a second sub-layer of $\tau 2$-Ti_2AlNi and a third sub-layer of $\tau 3$-TiAlNi.

15. Part according to any of claims 11 to 14, wherein the said other metal material (4) is a nickel-based alloy.